BLACKWOOD SQUARE SHD

EIAR Volume 3 – Part B

rpsgroup.com

Verified Views for proposed Development / Blackwood Square

Cosgrave

Method Statement for Creation of Views

The visual impact assessments contained within this document have been created to the best of our knowledge within the guidelines outlined in the document 'Guidelines for Landscape and Visual Impact Assessment 3rd Edition'.

Selected View Points
From Prop view layout dwg we established on site the 5 'view' locations.

Survey Method / Camera positioning and spot heights
A suitable point to set up the camera tripod was marked on the ground. A second point was marked on the line (direction) of the shot. I surveyed * in the two points at each set up. This establishes the position and the direction (bearing) of the shot (view).
The heights** of the buildings in the backround were measured later on by me with GPS and hand held laser.

** GPS rover on the Trimble VRS network. This RTK solution gives ITM co-ords that I converted to Lat /Long Co-ords. For this I used the OS conversion available on line.*

*** Heights are A.O.D (above ordinance datum / Malin Hd)*

Land Surveyor: Mick O'Toole (Dip Geo-Surv) MCES with 33 years experience.

Photography Method
The camera used for all Views (1 - 5) in this document was a Full Frame Canon EOS 5D II digital SLR. The lens type used was a fixed focal length Canon 50mm EF 1:1.8 II. All photographs were taken with the aid of a sturdy tripod centred to surveyors mark and levelled at a height of 150cm from ground using on end-standard tape measure.

Images captured in jpg 21MP 8bit rgb colour. Settings used were 100 ISO with variable shutter speeds between 1/25 & 1/160 sec and aperature F13.

Photographer: Stewart Kenny . BTEC HND Photography with 15 years experience.

3D model
The three-dimensional computer model of the proposed development which is superimposed upon the existing views was created by the importing of architectural AutoCAD plans and elevations into Lightwave 3d, Version 11.6. The plans and elevations were utilised to build an accurate 3d representation of the proposed development. The contextual area around the site was obtained from OS data supplied by the architect, spot heights for surrounding building were supplied by Survey (outlined above). This OS data was used to create elements of the existing surrounding area where this was appropriate for the matching of viewpoints, including the footprint of key buildings and levels around the site.

Camera Matching and Rendering
The particular method that has been used to verify the photomontage views of the proposed development is set out below. The verification process confirms the accuracy of the three dimensional model in relation to each existing views. The details of the Ordnance Survey co-ordinates for each viewpoint, and the angle of each view have also been checked as part of the verification process.

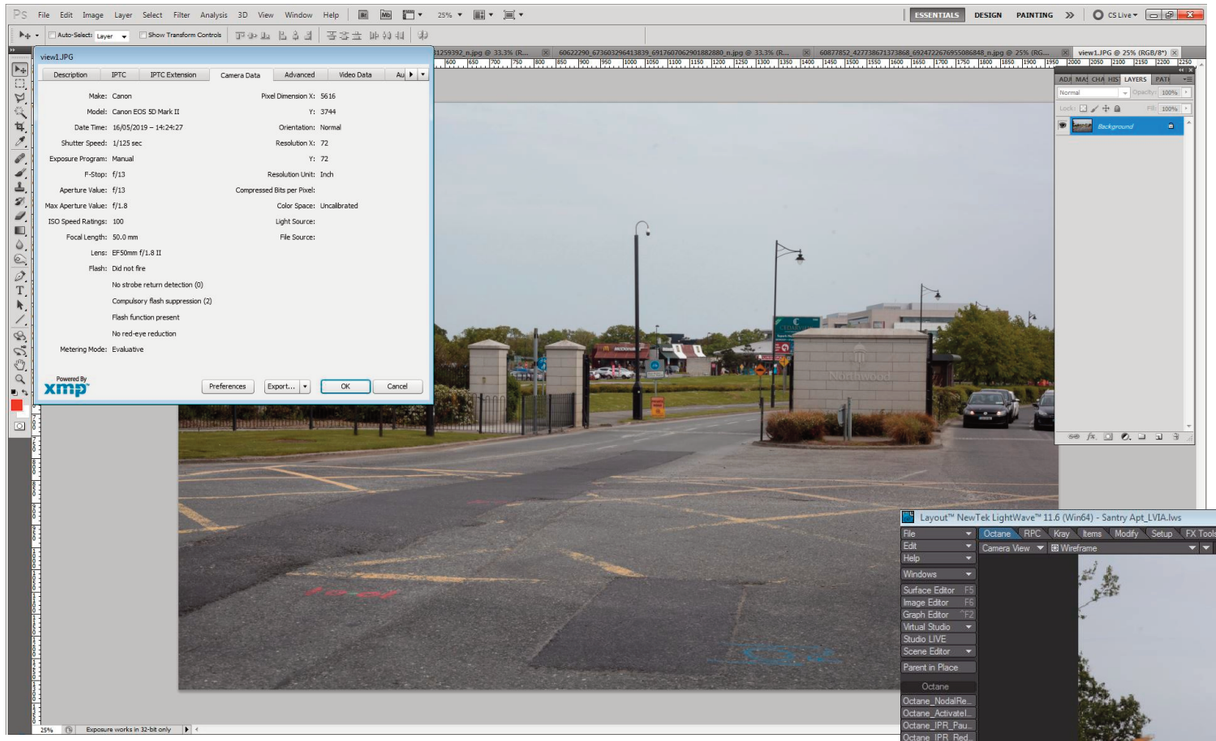
The matching process involves accurately positioning the three-dimensional model of the proposed development within each existing view. The camera model, lens type and focal lengths are taken from the photographs EXIF file which is stored within each image. This data is then entered into Lightwave 3d in order that the virtual camera simulates in everyway that of the actual real world camera and lens. Each viewpoint photograph is independently imported into Lightwave 3d using exactly the same proportions and pixel dimensions as that of the actual photograph. This image is then visible as a backdrop to the 3d wireframe model. The virtual 3d camera is placed in exactly the same positions on the 3d model as was positioned on site. Existing modelled key buildings can be seen within the photographed backdrop giving further confirmation of the viewpoints accuracy. The lighting is then simulated based upon the sites location, time of year, time of photograph and camera position, adjustments are also made based upon the weather as recorded at the time of the photograph were taken.

Once the process of camera matching has been achieved for each viewpoint the 3d model of the proposed site is then rendered using the same camera, lens, exposure and lighting settings as mentioned above.

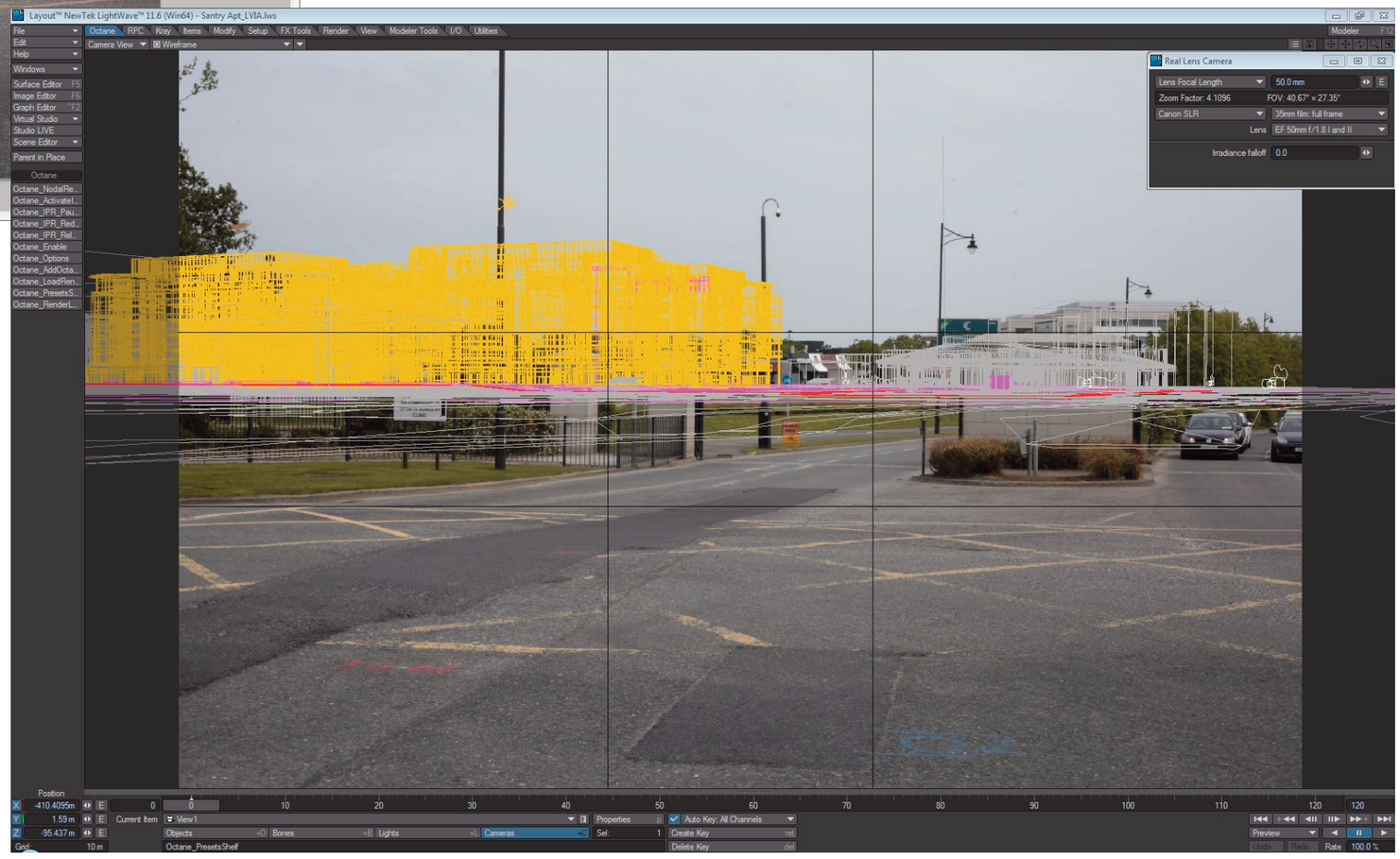
Post Photo montage
The render of the three-dimensional model is then superimposed on the existing still views in Adobe Photoshop. The foreground of the existing views i.e. trees, lamp posts, cars, buildings etc, are then copied and placed over the rendered model in order to ensure that the depth is accurate within the photomontage view between the foreground, background and the rendered model. This re-placing of existing trees and foliage has been meticulously carried out in order to give an accurate and true representation of the visual impact of the proposed development. Due to limitations in Photoshop where a dense tree canopy obscures the development it is common for more of the development to be exposed than actually would be in the real World and this should be taken into considered when viewing the images. At this stage, the textured model can be further adjusted to match the resolution, colouring and saturation of the photograph taken to create a close impression of what the textures of the building would look like. This is a qualitative exercise and requires interpretation by the designer on how the building will look, and guidance from the architect. A final qualitative check of all of the photomontage images has been carried out to ensure that they provide objectively accurate views of the proposed development.

Working sample of positioning for Viewpoint 1 is included on next page.

Sample of Positioning / Viewpoint 1



Existing photography data from Viewpoint 1



CGI Camera position and camera data Viewpoint 1

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Viewpoint 1

East 715445.01 **North** 740705.75 **Grid Bearing** 75.47.50 **Spot Height (aod) Ref:** 71.01

VIEW 1

SPOT HEIGHT REFERENCE
Pink mark shows building used for spot height

CAMERA SET UP
Camera leveled and centred above surveyors mark

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Viewpoint 2

East 715809.82 **North** 740645.34 **Grid Bearing** 310.05.05 **Spot Height (aod) Ref:** 66.13

SPOT HEIGHT REFERENCE
Pink mark shows building used for spot height

CAMERA SET UP
Camera leveled and centred above surveyors mark

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Viewpoint 3

East 716049.77 **North** 740768.04 **Grid Bearing** 216.05.56 **Spot Height (aod) Ref:** 77.51

SPOT HEIGHT REFERENCE
Pink mark shows building used for spot height

CAMERA SET UP
Camera leveled and centred above surveyors mark

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Viewpoint 4

East 716328.74 **North** 740581.87 **Grid Bearing** 293.29.28 **Spot Height (aod) Ref:** 66.92

SPOT HEIGHT REFERENCE
Pink mark shows building used for spot height

CAMERA SET UP
Camera leveled and centred above surveyors mark

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Viewpoint 5

East 715805.64 **North** 741048.33 **Grid Bearing** 210.49.53 **Spot Height (aod) Ref:** 75.85

SPOT HEIGHT REFERENCE
Pink mark shows building used for spot height

CAMERA SET UP
Camera leveled and centred above surveyors mark

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